

Application No. 10/070,690
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November 19, 2004
Reply to Office Action of August 24, 2004

REMARKS

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

In the present application, claims 1, 3 and 5-16 are pending. Claims 1, 3, 15 and 16 have been amended. No new matter has been added by way of the present amendments to claims 1, 3, 15 and 16, since support for these amendments can be found in the present specification at page 7, lines 20-24 (see also page 6, lines 22-23).

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues Under 35 U.S.C. § 102(b)

Claims 1, 8, 11, 13 and 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schreyer '083 (U.S. Patent No. 3,085,083). Applicants respectfully traverse, and reconsideration and withdrawal of this rejection are respectfully requested.

In the Office Action, the Examiner refers Applicants to various parts of Schreyer '083, including portions of columns 3 and 7 and Example IV. However, Applicants respectfully refer the Examiner to the scope of pending claim 1, wherein the cited Schreyer '083 reference fails to

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disclose all features as instantly claimed, including the use of hydroxides and/or carbonate salts.

In the present invention, an unstable terminal group -COOH is converted to a stable $\text{-CF}_2\text{H}$ via -COOM (wherein M is an alkali metal and an alkali earth metal), such as -COOK or -COONa . The presence of the claimed hydroxide or carbonate, which exhibits an alkali property in the presence of water, is necessary for producing the -COOM . However, the addition of sulfate salts or nitrate salts is not effective for forming the -COOM so that unstable terminal groups cannot satisfactorily be converted to the stable $\text{-CF}_2\text{H}$ groups.

Thus, Applicants submit that Schreyer '083 fails to disclose the use of hydroxide or carbonate salts in its disclosure and working examples, and does not disclose the present invention. Instead, Schreyer '083 discloses the addition of potassium sulfate. However, potassium sulfate is not sufficient to convert -COOH to $\text{-CF}_2\text{H}$ as mentioned above. Schreyer also discloses the addition of sodium sulfate in its Example IV. However, the disclosed sodium sulfate in Schreyer '083 similarly does not convert the unstable terminal -COOH groups to $\text{-CF}_2\text{H}$ when compared to the present invention.

The other disputed claims depend on claim 1.

Thus, Applicants respectfully submit that because "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art

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reference," the cited Schreyer '083 reference cannot be a basis for a rejection under § 102(b). See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, because of the lack of disclosure of all features as instantly claimed, the rejection in view of Schreyer '083 is overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

Issues Under 35 U.S.C. § 103(a)

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Schreyer '083 as applied above to claims 1, 8, 11, 13 and 15, in view of Buckmaster '214 (U.S. Patent No. 5,726,214) and Hartwimmer '101 (U.S. Patent No. 4,262,101) (see pages 3-4 of the Office Action).

Also, claims 3, 5-7, 10, 12, 14 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schreyer '083 as applied above to claims 1, 8, 11, 13 and 15, in view of Kaulbach '588 (U.S. Patent No. 6,541,588 B1) (see pages 4-6 of the Office Action).

Further, claims 1, 3 and 5-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Publication No. EP 0 870 792 A1 (Bidstrup '792) in view of Kaulbach '588 as applied above to claims 3, 5-7, 10, 12, 14 and 16 (see pages 6-9 of the Office Action).

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Applicants respectfully traverse each rejection, and reconsideration and withdrawal of all rejections are respectfully requested.

The first two cited rejections have Schreyer '083 as the primary reference. The other rejection has the European reference of Bidstrup '792 as the primary reference.

Distinctions over Combination of Schreyer '083, Buckmaster '214 and Hartwimmer '101, and over Combination of Schreyer '083 and Kaulbach '588

With regard to the cited primary reference of Schreyer '083, the Office Action states that this reference does not disclose perfluoroalkyl vinyl ether (at page 4, lines 3-4 of the Office Action) and the total content of alkali metal and alkali earth metal (see lines 2-4 from the bottom of page 2 of the Office Action). However, Applicants respectfully submit that Schreyer '083 further fails to disclose the use of a hydroxide and/or carbonate salt as explained above.

In fact, Applicants submit that each of Schreyer '083, Buckmaster '214, Hartwimmer '101 and Kaulbach '588 fails to disclose or suggest the advantage of (1) the hydroxide or carbonate salts as instantly defined in pending claim 1, as well as (2) the alkali metal or alkali earth metal content range as instantly defined in pending claim 1 (claim 9 depends on claim 1) or claim 3. Thus, Applicants respectfully submit that at least the first two rejections (in view of Schreyer '083 +

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Buckmaster '214 + Hartwimmer '101; in view of Schreyer '083 + Kaulbach '588) have been overcome. This is because U.S. case law squarely holds that a proper obviousness inquiry requires consideration of three factors: (1) the prior art reference (or references when combined) must teach or suggest all the claim limitations; (2) whether or not the prior art would have taught, motivated, or suggested to those of ordinary skill in the art that they should make the claimed invention (or practice the invention in case of a claimed method or process); and (3) whether the prior art establishes that in making the claimed invention (or practicing the invention in case of a claimed method or process), there would have been a reasonable expectation of success. See *In re Vaeck*, 947 F.2d, 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); see also *In re Kotzab*, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000); *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988).

Here, not even the first requirement of disclosure of all claimed features has been satisfied. Thus, Applicants submit that a *prima facie* case of obviousness has not been established with respect to the cited references of Schreyer '083, Buckmaster '214, Hartwimmer and Kaulbach '588 and that these rejections have been overcome. Because these rejections have been obviated, withdrawal thereof is respectfully requested.

The requisite motivation and reasonable expectation of success are also lacking, since one of ordinary skill in the art would not know how

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to proceed in achieving the present invention given that the references are so incomplete in their disclosures.

Distinctions over the Combination of Bidstrup '792 and Kaulbach '588

The Office Action refers Applicants to various parts of the primary reference of Bidstrup '792, such as the reference's abstract and parts of pages 3-4. However, Bidstrup '792 fails to disclose all features and advantages of the present invention, and cannot be properly combined with Kaulbach '588.

For instance, Example 1 of Bidstrup '792 uses potassium nitrate. Potassium nitrate is neutral and when is in an aqueous solution, it cannot cause the conversion reaction to $-COOM$. Accordingly, all terminal groups cannot be converted to $-CF_2H$ in the cited Bidstrup '792 reference. In Bidstrup '792, the terminal groups can be converted to $-CF_2H$ in the presence of water and heat without passing through $-COOM$. But this is a different reaction. Therefore, Bidstrup '792 is technically different from the present invention and fails to disclose all claimed features.

Overall, Bidstrup '792 fails to disclose or recognize the advantage of (1) the hydroxide or carbonate salts as defined in pending claim 1, as well as (2) the alkali metal or alkali earth metal content range as defined in pending claim 1. Similarly, and as mentioned above, Kaulbach '588 fails to disclose or suggest (1) the hydroxide or carbonate salts

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as instantly defined in pending claim 1, as well as (2) the alkali metal or alkali earth metal content range as instantly defined in pending claim 1. In other words, the cited secondary reference of Kaulbach '588 does not account for the deficiencies of the primary reference of Bidstrup '792 and could not guide the skilled artisan in achieving the present invention. Thus, Applicants respectfully submit that the instant rejection has been overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

Conclusion

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, or in an effort to advance prosecution, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in connection with the present application.

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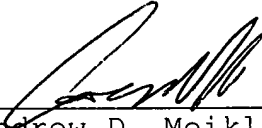
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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